

Name: Key

Chapter 10 Quiz: Cell Cycle

Date: \_\_\_\_\_ Period: \_\_\_\_\_

Ms. Cupone

**Part A. Matching:** Match the event description with the appropriate term of the cell cycle phase it occurs in. Answer choices may be used once, more than once, or not at all.

- g 1. DNA is replicated
- a 2. Chromatids migrate to opposite poles of the cell.
- h 3. Nuclear envelope re-forms around each new set of genetic material.
- e 4. Chromosomes line up in the middle of the cell.
- c 5. Cell growth and organelles are synthesized (not DNA).
- f 6. Chromatin condenses into chromosomes
- f 7. Centrioles move to opposite poles
- b 8. Cytoplasm divides
- h 9. Chromosomes un-condense into threadlike chromatin.
- f 10. Nuclear envelope disintegrates

- a) Anaphase
- b) Cytokinesis
- c) G<sub>1</sub> of interphase
- d) G<sub>2</sub> of interphase
- e) Metaphase
- f) Prophase
- g) S of interphase
- h) Telophase



**Part B. Multiple Choice:** Choose the letter that best answers the question and place it on the line provided.

- b 11. Normal mitotic cell division results in each daughter cell having
- a) Half the number of chromosomes as the parent cell
  - ☒ b) The same number and kinds of chromosomes as the parent cell
  - c) The same number but different kinds of chromosomes as the parent cell
  - d) Twice the number of chromosomes as the parent cell

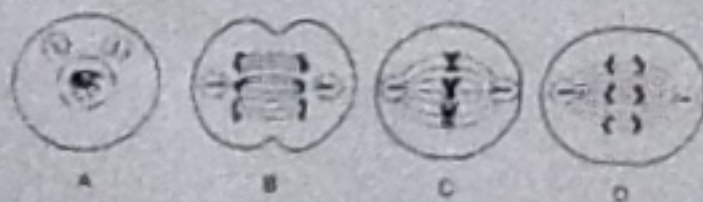
- a 12. Mitosis occurs in all life cycle events below EXCEPT:

- ☒ a) Sex cell production
- b) Wound healing
- c) Body cell replacement
- d) Growth

- b 13. All of the following are problems that growth causes for cells EXCEPT:

- a) DNA overload
- ☒ b) Excess surface area
- c) Difficulty obtaining nutrients
- d) Difficulty expelling waste

- b 14. Which is the correct sequence for the stages of mitotic cell division represented by the diagrams below?



- a) A → B → C → D
- ☒ b) A → C → D → B
- c) B → A → D → C
- d) B → C → D → A

- a 15. What is the role of spindle fibers during mitosis?

- ☒ a) Help separate sister chromatids
- b) Break down the nuclear envelope
- c) duplicate the DNA
- d) divide the cell in half



**Part C. Short answer.** Fill in the blank with the appropriate term that correctly completes the sentence.

16. Chromatin is made up of DNA tightly wrapped around histone proteins
17. Cytokinesis in plant cells is marked by the formation of a cell plate
18. Human body cells contain 46 chromosomes
19. Centrioles form and move to opposite sides of the cell and are responsible for the production of spindle fibers.
20. The center of a chromosome is called the centromere and holds the sister chromatids together.